REMARKS

In the Office Action, claims 1-22 were rejected. By the present Response, claim 11 is canceled, claims 1, 10, 12, 13, 17, 19 and 20 are amended and new claim 23 is added. Upon entry of the amendments, claims 1-10 and 12-23 will be pending in the present patent application. Reconsideration and allowance of all pending claims are requested.

Rejections Under 35 U.S.C. § 102

Claims 1, 6, 7, 9-14 and 18-22 were rejected under 35 U.S.C. 102(b) as being anticipated by Charron (4,770,181). The Examiner suggested that Charron shows a burner system including, among other things, a gas burner 43, micro-electromechanical valves 37, 39 and a controller with modulation, and cited a specific passage (col. 5, lines 4-19) from Charron in support of the rejection.

By the present response, independent claims 1, 10 and 19 are amended to particularly point out the features of the claimed invention. Claim 1 has been amended to recite a micro-electro-mechanical valve comprising a plurality of microvalves in parallel fluid communication with the gas burner. The plurality of microvalves are arranged in an array and are in parallel fluid communication with the gas burner to provide an improved electronic control of gas burner. See, e.g., Figures 1-3 and paragraph 009 of the Detailed Description.

Applicants have carefully reviewed the passage cited by the Examiner. The cited passage reads:

> Since this amplitude is furthermore related, apart from the current gain of transistor 15, to the value of the current in the base of this same transistor and since this latter is related, through Ohm's law, to the ohmic value of the resistive sensor 40, it will be readily understood that whenever the temperature of hot water produced approaches the temperature T from which the ohmic value of sensor 40 increases very rapidly, the base current of the transistor also decreases very rapidly, causing the same rapid

> decrease of the amplitude of the half waves in the mobile coil and, consequently, a decrease just as rapidly of the rate of modulation of the micro-electro valve, which causes a decrease in the differential pressure acting on membrane 33, which finally rises towards seat 32, thus reducing the flow of gas to the burner 43.

Clearly, the Charron patent as exemplified by this passage, does not teach providing an array of a plurality of microvalves in parallel fluid communication with the burner.

Absent any teaching regarding these recitations of claim 1, Charron simply cannot support a *prima facie* case of anticipation. Therefore, Applicants submit that independent claim 1 is allowable and respectfully request the Examiner to reconsider rejection of the claim.

Claim 10 has been amended to recite an electronically controlled gas burner system comprising at least one gas burner and a micro-electro-mechanical valve comprising a plurality of independently controllable microvalves in parallel fluid communication with the gas burner. Each of the microvalves in the micro-electro-mechanical valve is independently controlled to open or close the microvalves for allowing gas to flow from the gas supply to the burner at a desired rate. See, e.g., paragraph 008 of the Detailed Description. As discussed above, Charron does not teach an arrangement with a plurality of microvalves in parallel fluid communication with the burner. Furthermore, Charron does not teach such microvalves being independently controllable. Therefore, Applicants submit that independent claim 10 is allowable and respectfully request the Examiner to reconsider rejection of the claim.

Claim 19 has been amended to recite a method for controlling gas flow to a gas burner. The method includes issuing a command for a desired gas flow and controlling opening of at least some of a plurality of independently controllable microvalves in parallel fluid communication to provide the desired gas flow corresponding to the

command. The method is particularly advantageous as different numbers of microvalves may be opened or closed to provide variable gas flow. For example, in an array configuration comprising ten valves one of the microvalves may be opened to provide a lowest setting of gas flow to the burner and progressively larger numbers of microvalves may be opened to provide increasingly higher gas flows. See, e.g., paragraph 010 of the Detailed Description. The prior art fails to teach such an arrangement. Applicants therefore submit that independent claim 19 is allowable.

In summary, Applicants submit that independent claims 1, 10, and 19 are allowable. Claims 2-9 and 12-16 and 20-22 depend from independent claims 1, 10 and 19, respectively. Applicants respectfully submit that insomuch as independent claims 1, 10 and 19 are allowable, claims 2-9, 12-16 and 20-22 are allowable at least by virtue of their dependence from an allowable base claim.

Rejections Under 35 U.S.C. § 103

Claims 2, 3, 4, 5, 8, 15, 16 and 17 were rejected under 35 U.S.C 103(a) as being unpatentable over Charron.

Claim 17 has been amended to recite a gas valve comprising a plurality of microvalves in parallel fluid communication with a gas burner of a cooking appliance. As discussed above with reference to independent claim 1, Charron does not teach a gas valve having a plurality of microvalves in parallel fluid communication with the gas burner. For the reasons summarized above, Applicants respectfully submit that independent claim 17 is allowable and respectfully request the Examiner to reconsider rejection of the claim. Claim 18 depends from claim 17. Applicants respectfully submit that insomuch as independent claim 17 is allowable, claim18 is allowable at least by virtue of its dependence from an allowable base claim.

The remaining dependent claims are also patentable at least by virtue of their dependency from an allowable base claim.

New claim 23

Claim 23 is believed to be allowable for the same reasons as recited above for claims 10 and 19.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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PSY

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